What is claimed is:

1. A device, comprising:

a manipulandum movable in at least two degrees of freedom;

a sensor configured to detect a movement of the manipulandum;

an actuator coupled to the manipulandum and configured to apply an output force in at least one degree of freedom of the manipulandum; and

a mode selector configured to select one of an isotonic interaction mode and an isometric interaction mode, when in the isotonic mode, the mode selector being configured to provide input to a host computer based on the movement of the manipulandum, when in the isometric mode, the mode selector configured to provide input to the host computer based on an input force applied to the manipulandum, the output force being based on the movement detected by the sensor, the movement being in a direction opposing the output force generated by the actuator.

2. The device of claim 1, wherein the sensor is configured to detect the force applied to the manipulandum based on a measured deviation of the manipulandum from a locally-defined origin.

3. The device of claim 1, wherein the mode selector includes a physical button provided on the manipulandum.

4. A method, comprising:

receiving an indication to engage an isometric control mode of an interface device;

determining a movement of a manipulandum in at least one of a plurality of degrees of freedom, the deviation being based on an input force imparted to the manipulandum;

outputting a control signal associated with an isometric function of an application program based on the determined deviation; and

applying via an actuator a resistive force to the manipulandum opposing the input force, the resistive force being based on the control signal.

5.   The method of claim 4, wherein the receiving includes receiving the indication from an input device.

6.   The method of claim 5, wherein the input device includes a button.

7.   A device, comprising:

a manipulandum configured to be moved within a substantially planar workspace;

a mode selector configured to select a control mode for the manipulandum, the control mode being one of an isotonic control mode and an isometric control mode;

an actuator coupled to the manipulandum and being configured to apply a force to the manipulandum;

a sensor configured to detect a deviation of the manipulandum from a local origin, the sensor further configured to output a sensor signal based on the deviation; and

a local microprocessor coupled to the actuator and to the sensor, the local microprocessor configured to receive the sensor signal and to provide an actuator signal to the actuator, the local microprocessor being coupled to a host computer by a communication bus.

8.   The device of claim 7, wherein, in the isotonic control mode, the local microprocessor is configured to send the sensor signal to the host computer over the communication bus so that a displayed position of a simulated graphical object on a display of the host computer is based on the sensor signal.

9.   The device of claim 7, wherein in said isotonic mode, the actuator is configured to output forces on the manipulandum based on a simulated interaction of a simulated graphical object with at least one of a plurality of other graphical objects on the display.

10.   The device of claim 7, wherein, in the isometric control mode, a restoring force is applied to the manipulandum, the restoring force being based on the deviation of the manipulandum from the local origin.

11. The device of claim 7, wherein the input force is determined by the local microprocessor, an input force signal being output by the local microprocessor to the host computer over the communication bus.

12. A method, comprising:

sensing a movement of a manipulandum in at least one degree of freedom;

outputting via an actuator a force to oppose the movement of the manipulandum in the at least one degree of freedom, the magnitude of the force being determined by a local microprocessor separate from a host computer; and

performing at least one of a scroll, a pan, or a zoom function for a displayed image in a graphical user interface in response to the movement of the manipulandum.

13. The method of claim 12, wherein the force output by the actuator is a function of a displacement of the manipulandum with respect to a local origin.

14. The method of claim 12, wherein a rate of the scroll, the pan, or the zoom is a function of a displacement of the manipulandum with respect to a local origin.

15. The method of claim 12, wherein the actuator is configured to apply a second force to the manipulandum based on a simulated interaction with a graphical object displayed in the graphical user interface.

16. The method of claim 15, wherein the displayed image is a displayed document, and the second force includes a force applied to the manipulandum based on a simulated scrolling past a boundary of a page of the displayed document.

17. The method of claim 15, wherein the displayed image is a displayed document, and the second force includes a force applied in response to a simulated interaction with the end of the displayed document that is one of scrolled, panned and zoomed in a particular direction.

18. The method of claim 12, wherein a magnitude of the force is dependent at least in part on a file size of the displayed image that is one of scrolled, panned and zoomed.

19.	The method of claim 12, wherein the actuator is a servo motor controlled by the local microprocessor separate from the host computer.

20.	The method of claim 12, wherein the actuator is a voice coil actuator controlled by the local microprocessor separate from the host computer.

21.	The method of claim 12, wherein the force is applied in a first direction, and the scroll, pan, or zoom function is performed only when the manipulandum is moved in a second direction opposite the first direction.

22.	A method, comprising:

receiving a sensor signal based on movement of a manipulandum in a degree of freedom, the movement being in a first direction;

applying via an actuator a resistance in a second direction opposite the first direction; and

adjusting a value of an audio parameter in response to the movement of the manipulandum, the adjusting being a function of a magnitude of the movement, the audio parameter being used, at least in part, in the output of an audio signal.

23.	The method of claim 22, wherein the audio parameter is used to control a frequency of the audio signal output.

24.	The method of claim 22, wherein the audio parameter is adjusted based on a distance of the movement of the manipulandum in the degree of freedom.

25.	The method of claim 24, wherein a frequency of a tone of the audio signal output is based on the distance that manipulandum is moved after the resistance is applied.

26.	A method, comprising:

receiving a sensor signal based on movement of a manipulandum in a degree of freedom, the movement being in a first direction;

applying via an actuator a resistance in a second direction opposite the first direction; and

adjusting a value of a video parameter in response to the movement of the manipulandum, the adjusting being a function of a magnitude of the movement, the video parameter being configured to output an image on a display to indicate the magnitude of the movement.

27.   The method of claim 26, wherein the image is based on a magnitude of a deviation of the manipulandum from a reference position when the manipulandum is moved in the first direction.

28.   The method of claim 27, wherein the video parameter is a color parameter, a color of the image indicating the magnitude of the deviation.

29.   The method of claim 27, wherein the video parameter is configured to display a value on the display, the value indicating the magnitude of the deviation.

30.   The method of claim 27 wherein the video parameter is configured to display a bar graph on the display, the bar graph indicating the magnitude of the deviation.